

florida department of agriculture

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biennial report
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Dale Conner

Commissioner

Letter of Transmittal



Commissioner Doyle Conner



STATE OF FLORIDA
DEPARTMENT OF AGRICULTURE
THE CAPITOL
TALLAHASSEE



The Honorable Haydon Burns
Governor of Florida

Dear Governor:

I have the privilege of submitting to you the 38th Biennial Report of the Florida Department of Agriculture for the period of July 1, 1962, to June 30, 1964.

This report emphasizes the major services and programs provided by this Department, with statistical data indicating their scope and volume.

Respectfully submitted,

Doyle Conner
Commissioner

FLORIDA DEPARTMENT OF AGRICULTURE

Doyle Conner, Commissioner

Frank W. Risher, Assistant Commissioner



DIVISION DIRECTORS

Frank W. Risher, Director
Division of Administration

C. L. Campbell, Director
Division of Animal Industry

V. E. Stewart, Director
Division of Chemistry

Alex Shaw, Director
Division of Dairy Industry

H. M. Riley, Director
Division of Fruit & Vegetable Inspection

Lowell Woodham, Director
Division of Inspection

J. B. Owens, Director
Division of Marketing

H. L. Jones, Director
Division of Plant Industry

Nalls Berryman, Director
Division of Standards

Commissioner Of Agriculture

The Commissioner of Agriculture is charged with the leadership and supervision in the field of agriculture, administration of regulatory laws established for the health and welfare of the consumers and farmers, and leadership in State affairs as a member of the State Cabinet and various other boards and commissions.

Not only the agricultural producer—the farmer, rancher, grove owner or any other engaged in agricultural pursuits—benefits from the activities of the Department of Agriculture. The life of every person in the State is affected in some degree by this agency.

Everyone is primarily a consumer of food and fiber. It is the responsibility of the Department to provide leadership and assistance to assure the production of adequate, wholesome supplies of food and fiber.

Today's Florida Department of Agriculture is a result of services requested and needed by the State's rapidly expanding population.

Advisory Council & Technical Committees

A 26-man Advisory Council is appointed by the Commissioner of Agriculture to counsel and consult with him

regarding the promulgation, administration and enforcement of various regulations of the Department.

In addition, there are five technical committees to assist him.

These include the Animal Industry Technical Committee, the Dairy Industry Technical Committee, the Fertilizer Industry Technical Committee, the Pesticide Industry Technical Committee and the Plant Industry Technical Committee.

Department Divisions

There are nine divisions within the Department of Agriculture to aid the Commissioner of Agriculture in fulfilling the duties of his office.

The Division of Administration is directed by the Assistant Commissioner of Agriculture. The others are headed by division directors.

These include the Division of Animal Industry, Division of Chemistry, Division of Dairy Industry, Division of Fruit and Vegetable Inspection, Division of Inspection, Division of Marketing, Division of Plant Industry and Division of Standards.

Division Of Administration

It is the function of the Division of Administration to coordinate overall programs within the Department of Agriculture and to handle its internal affairs.

This is done by members of the Commissioner of Agriculture's personal staff and the various sections established within the Department.

Personnel Section

The Personnel Section handles personnel records of all the Department's employees, and administers rules and regulations pertaining to personnel and personnel practices.

During this biennium, this Section assisted in the preparation of a new pay plan for employees which will go into effect July 1, 1965. It is also assisting in the production of an employee manual.

Agricultural Information Section

The "voice" of the Department is the Agricultural Information Section.

Through feature stories, speeches, news releases, photographs and personal contacts this Section attempts to acquaint the industry and the non-farming public with the

advances being made in agriculture and its importance to the State's economy.

It also coordinates the informational services provided by other Divisions within the Department.

Three new publications pertaining to agriculture were printed in 1964; and the revision of 10 more popular booklets is underway.

Other improvements are being made in the production of reports and bulletins, including the Department's twice-monthly Florida Market Bulletin.

Fiscal & Auditing Section

Accounting procedures for both revenues and disbursements have been greatly improved through use of IBM machines in the Fiscal and Auditing Section. Revenue from all sources is monitored and disbursements are vouchered and approved for payment in this Section.

Records

Improvements have also been made in the Records Section, which provides a central record-keeping system service for the entire Department.



Modern electronic equipment used.



Administrative personnel highly trained.

Civil Defense

Of vital importance to all Florida citizens, especially those in large urban centers, are the food supplies that will be available in the event of a disaster.

Civil Defense plans place responsibility for the control of all food, petroleum and liquid petroleum gas supplies at the retail level in Florida with the Department of Agriculture. All planning for this purpose is being coordinated with the work of other State agencies and the U. S. Department of Agriculture.

In addition, this Section provides specialized training for employees in chemical, biological and radiological defense methods.

General Services

Least known, but one of the important sections of the Administration Division, is General Services. It handles all mailing services within the Department, maintenance of buildings, and provides other services which cannot be efficiently and economically conducted in any other sections.

Division Of Animal Industry

The Division of Animal Industry is responsible for the health of the livestock and poultry population of the State through the prevention, control and eradication of contagious and infectious diseases and parasites within the State.

The Division is also responsible for assuring consumers of the State of wholesome and unadulterated meat and meat food products, produced under sanitary conditions from disease-free animals.

It develops and administers regulatory programs designed to eradicate or control the spread of diseases, and maintains field inspection personnel and disease diagnostic laboratories.

Brucellosis and Tuberculosis Section

Some 458,268 cattle were officially brucellosis blood tested in the joint state-federal brucellosis control program during the last two years. Approximately 1.6 percent of the beef cattle tested and 1.5 percent of the dairy cattle were found to be infected.

A total of 226,088 beef calves and 59,876 dairy calves were vaccinated with brucella vaccine furnished by the Division. Twenty-three counties were recertified as modi-

fied certified brucellosis-free areas during the period covered. No new counties entered into the area testing program.

Thirty-seven dairy herds located in 14 counties were found to contain tuberculosis reactors. No T. B. infection was found in beef herds. All counties in Florida are now designated as accredited tuberculosis free areas.

Contagious and Infectious Diseases Section

A joint state-federal hog cholera eradication program was instituted in Florida on February 1, 1963. This is part of a national effort to eradicate this disease through an accelerated vaccination program, controlled swine movements, and condemnation of infected and exposed animals.

During the first year of the program the number of swine vaccinated increased 53 percent over the previous year, and an immediate decline in the number of hog cholera cases resulted. Only 52 cases of hog cholera involving swine in 26 counties have been observed since the eradication program was initiated. No cases were found during the last six months covered by this report.

Inspections were made of all livestock passing through the 34 livestock markets under supervision of the Division. All animals—837,958 cattle and 727,610 swine—were in-

spected for the presence of contagious or infectious diseases, as well as external parasite infestation.

The Section continued its surveillance of all garbage feeding establishments, maintaining bimonthly inspections of all swine fed garbage.

In cooperating with livestock owners, field inspectors of the Division maintained a vigilant watch for any evidence of a reinfestation of screwworms or cattle fever ticks. No positive cattle fever tick or screwworm specimens were found in the period covered.

Poultry Services Section

The administration of the National Poultry Improvement Plan and the National Turkey Improvement Plan is the major responsibility of this Section. The program includes blood testing of breeding flocks for pullorum disease and fowl typhoid and supervision and inspection of hatcheries.

Forty-nine poultry flocks consisting of 301,876 birds and six turkey flocks containing 14,071 birds were blood tested. All flocks maintained a classification as Pullorum-Typhoid Clean.

Thirty-one chick hatcheries and four turkey hatcheries with a combined capacity of over 6 million eggs operated under supervision of this Section.

A new service by this Section is hatchery air sampling procedure which reveals major areas of bacterial contamination.

The supplying of baby chicks and hatching eggs to foreign countries is a major facet of the poultry industry



Hog cholera eradication program initiated.

in this State. More than 22 million baby chicks and 3.9 million dozen eggs were certified for shipment to foreign countries by representatives of this Section.

A program designed to control laryngotracheitis in poultry was inaugurated in September 1962, and considerable headway has resulted in halting the spread of this disease. This program involves the vaccination of poultry in affected areas with institution of quarantine measures, together with rigid sanitary practices and strict control over the movement of poultry into the State.

Mastitis Section

The mastitis control program is offered to all dairymen on a voluntary basis. Seventy-three percent of the dairymen have availed themselves of the program services. The degree of success in controlling mastitis infection is directly proportionate to the degree in which recommended measures are carried out.

During the biennium 2,121 stable tests were conducted on 352,473 dairy cows, detecting 66,828 animals that were in need of veterinary attention for varying degrees of mastitis infection. A total of 35,750 quarter samples were collected in the field and subjected to 84,911 laboratory tests. These laboratory procedures assisted in identification of specific infecting organisms, and with the aid of sensitivity tests determined the appropriate medication for treatment.

While the percentage of dairy animals affected by mastitic organisms has not been reduced appreciably over

the past few years, the severity of infection has quite notably decreased.

In previous years approximately 45 percent of all quarters found to be affected were grouped in a severely infected category. Today only about 15 percent are so grouped.

With the continued aid of mastitis specialists and training of dairy employees and owners, infected animals can be detected when trouble begins and precautionary measures taken at once.

Meat Inspection Section

The Meat Inspection Section provides a service vital to livestock disease control, as well as providing assurance to the consumer of clean, wholesome, unadulterated meat food



Dairy cattle checked for tuberculosis.

products. This Section assists in the brucellosis and tuberculosis eradication programs and cooperates with another Division of the Department in the pesticide residue program.

A total of 1,312,877 meat producing animals were slaughtered in 62 slaughtering establishments under supervision of the Division during this biennium. In addition, 201 establishments which conduct only meat processing operations, received inspection by employees of the Section for sanitation and compliance with meat labeling regulations.

Diagnostic Laboratories Section

The services of the large animal and poultry diagnostic laboratories are being used at a steadily increasing rate. A total of 10,133 cases were received at the large animal laboratory in Kissimmee during this biennium.

New diagnostic techniques have been developed in the field of equine diseases such as infectious anemia and piroplasmosis, and in such cattle diseases as redwater, vibriosis and Johne's disease. A poison antidote center is available to veterinarians and stock owners and has been utilized several times in emergencies.

The four poultry diagnostic laboratories have kept pace with the demands of industry for a complete and more modern poultry disease service. Examinations for air contamination of the State's hatcheries are made in cooperation with the Poultry Service Section.

Immunity studies for epidemic tremor of eggs from various breeders are conducted. Continual studies and ex-

aminations are made to detect diseases early and render a fast accurate diagnosis. A total of 6,307 cases were received and handled by the poultry laboratories during the period of this report.

Equine Disease Control

In the fall of 1962, a program was started in cooperation with the U. S. Department of Agriculture to control the spread of a newly introduced disease of horses—equine piroplasmosis. This disease was diagnosed for the first time in the United States in Dade County in 1961, and by 1962 reached epidemic proportions in Dade, Broward and Palm Beach counties.

The disease was determined to be transmitted by a species of tick, commonly known as the tropical horse tick, which was found to be prevalent in the southern portion of the State.

A control program for this tick was started. The program consisted of quarantining infected premises and treating all horses and other animals with an approved acaricide. The program has been quite effective in reducing the tick population, with a resultant decrease in the number of equine piroplasmosis cases.

The Division is also cooperating with other agencies in research work to develop drugs which will cure the disease in the carrier stage and to devise an accurate diagnostic test to detect carrier animals.

Division Of Chemistry

The Division of Chemistry is the laboratory arm of the Florida Department of Agriculture, and is devoted almost entirely to analyses of products used in agriculture or produced by agriculture.

Among the sections making up the Division are the Feed, Fertilizer, Food, Pesticide and Seed Laboratories.

A sixth section, designated as the Pesticide Residue Laboratory, was added this biennium to meet increased needs.

Although most of the Division's laboratories are located in Tallahassee, there is a branch pesticide residue laboratory in the Farmers' Market Building in Sanford.

In addition, two mobile laboratories operate throughout other parts of the State, and conduct pesticide residue analyses as well as other food analyses.

During the biennium the Division of Chemistry analyzed 54,533 samples of feed, fertilizer, food, pesticides, seed and miscellaneous products. Each of these samples required a number of determinations since an analysis for each component of the product must be made. The total number of analyses, tests and determinations conducted during the biennium was 417,702.

This volume of analyses requires a considerable staff of chemists, technicians and assistants using the most modern equipment and procedures. More complete statistical data on the work of the Division during the biennium appears elsewhere in this report.

Analytical techniques have changed greatly in recent years and are continuing to change at an increasing pace. Some analyses are still being conducted by procedures which the chemist refers to as "wet methods." These methods rapidly are being replaced by instrumental methods.

In some instances the instruments perform the analyses automatically or semi-automatically. Although these instruments are expensive, costing thousands and frequently tens of thousands of dollars, they usually are well worth the investment. Not only do they enable analyses to be conducted more rapidly, but they enable the chemists of the Division to determine components which could not be determined previously and to determine much smaller quantities.

Until recently, most analyses were reported in percentage (parts per hundred). Now many analyses are reported in parts per million and reports in terms of parts per billion will be commonplace before another biennial report is issued.



Pesticides residues checked.

Feed Laboratory

Consumers of commercial feeds have shown a continued interest in feeds containing minerals and drugs as the feed laboratory has made an increasing number of assays for these additives to many of the 9,521 official feed samples analyzed during the past biennium.

An antibiotic program has been incorporated into the overall feed control program. Microbiological methods of assay are being used to determine amounts of the more common antibiotics in official feed samples carrying significant guarantees for antibiotic additives.

Special samples have reflected an increased interest in silages as feeding materials. Tung nut samples were also included in the more than six hundred special samples analyzed, even though they are not used for feed. The determinations made on tung nuts were part of an investigative program for possible legislation.

The feed laboratory participated in collaborative check sample programs with other control and industry laboratories in order to maintain a high standard of accuracy.

Fertilizer Laboratory

The Fertilizer Section of the Division of Chemistry has the responsibility of analyzing fertilizer samples submitted by the Inspection Division.

In order to enforce the provisions of the Fertilizer Law, Rules and Regulations, spot checking of fertilizer tonnages and request samples were analyzed. An attempt was made

to analyze one sample for each 200 tons of fertilizer manufactured.

Much time and effort has been expended in revising the present Fertilizer Law. This revision was deemed necessary to bring the fertilizer law up-to-date and change the format to more closely conform to the Uniform Fertilizer Law as proposed by the Association of Fertilizer Control Officials.

Continued expansion of the microscopic program of fertilizer examinations has been undertaken. Many samples have been found to be mislabeled as to ingredients. A concentrated program of analytical methods research has been carried on and much progress has been made in instrumental analyses.

Food Laboratory

The Food Laboratory has been actively engaged in the analyses of samples in order to determine whether or not foods being sold in Florida comply with Florida Food, Drug and Cosmetic Law. This task is accomplished by chemical, bacteriological and other types of examinations of samples of foods, which indicate whether foods contain objectionable ingredients and whether they are properly labeled. Analyses of butter and oleomargarine have been made to determine whether or not they contain excess water.

Many samples of meat have been made to assure that they do not contain excessive amounts of extenders, such as starch, skim milk powder and water and whether they

contain preservatives which retain the color and deodorize tainted meats.

Numerous analyses of "Orange Juice" have been run to determine whether or not they contain added water. Examinations of canned "Early June Peas" have shown that in some cases this name was applied to cooked dried peas.

Bacteriological examinations made in food laboratories have determined whether or not meats and fish are contaminated with deadly bacteria. All foods have been examined for the presence of any extraneous matter.

The use of artificial color may be deceptive to the consumer. Examinations, therefore, include a determination as to whether or not artificial color is present.

In many cases packers of honey label their products with a specific floral variety. The Food Laboratory has examined many samples of honey in order to determine whether or not they were primarily Orange Blossom, Tupelo, Clover Blossom, or other varieties.

The certification of Tupelo Honey is the responsibility of the Food Laboratory. Examinations of raw honey samples submitted to the laboratory indicate whether or not the article should be certified.

Many samples of foods examined in the Food Laboratory have been violative to various degrees. None of these violations represented types which would make the food inedible for human consumption.

The labeling violations are, in practically every case, corrected by cooperation with the industries located in Flor-



Seed samples investigated.



Food samples tested.

ida and those firms manufacturing food products which are being shipped into this State.

Pesticide Laboratory

During the past biennium the Pesticide Laboratory has made good progress in the application of its infrared spectrophotometer in the field of pesticide analysis.

This progress has been most noticeable in the work on liquid formulations of pesticides which contain interfering

substances such as emulsifying agents, solvents, stickers and spreaders.

The laboratory has recently added a beam condenser to its infrared equipment and this new accessory will permit the analyst to make a qualitative and quantitative determination on much smaller amounts of pesticides than have been possible in the past.

Active participation in collaborative programs of the American Association of Pesticide Control Officials and the

Association of Official Agricultural Chemists has continued during the past two years by this laboratory in an effort to bring as much uniformity as possible into the analytical methods used for pesticide chemicals.

A revised sampling program is being initiated to allow the processing of more pesticide samples.

Pesticide Residue Laboratory

The 1963 Legislature amended the Food, Drug and Cosmetic Law to include pesticide residues and food additives in excessive or unauthorized quantities as adulterants of food products, and the federal regulations pertaining to these products were adopted as part of the Florida regulations.

Money was approved for additional facilities for the pesticide residue program. A new laboratory has already been constructed in the Farmers Market at Sanford and construction is underway to expand the facilities in Tallahassee.

Electron Capture Gas Chromatographs were purchased for all laboratories, including the citrus laboratory at Winter Haven. These instruments are more specific in qualitative and quantitative measurements of minute quantities of pesticides that may be present on foods. Paper chromatography, thin-layer chromatography and colorimetric methods are also used in pesticide residue analysis.

Control by the use of certain pesticides, which had been used for years, had to be discontinued and other measures used to eliminate excessive residue problems.

Greater emphasis has also been placed on products containing zero or near zero tolerances, and surveys are now being run to find out the extent of contamination in this area.

On January 1, 1964, Commissioner Conner created the Pesticide Residue Section within the Division of Chemistry, and encouraged greater participation in the field of processed foods, as well as fresh foods.

The efforts of all segments of agriculture have made this program one of the best in the United States. Many national and state agencies are now following the "Florida Plan" of preventive control by education and regulation.

Seed Laboratory

The Seed Laboratory checks the quality of seed lots to determine whether they are of good quality, thereby enabling the farmer to produce a good crop.

During this biennium we have checked 15,778 samples and have removed poor quality seed from the market.

It is impossible to check every lot of seed sold; therefore, it has necessitated the investigation of some complaints. The recommendations of the Arbitration Committee have been accepted on every complaint which has been investigated during this biennium.

The testing of forest tree seed was included in the Florida Seed Law during this period and a few samples have been tested with good results. The amount of work done in this field will depend on the interest of the industry since very few pine tree seeds are sold in this State.

Division Of Dairy Industry

People want the best in dairy products, and it is the responsibility of the Dairy Division to insure the public gets what it wants. This is done by the Division enforcing the laws relating to milk, milk products and frozen desserts.

To accomplish its mission, the Division has seven district dairy supervisors, two special dairy technicians and four chemists for the regulatory work pertaining to production and quality control.

The Jacksonville and Pensacola areas also have a special technician for supervising and testing out-of-state shipments of milk that come into these areas.

Future plans call for an increase in dairy personnel in other areas of the state receiving great amounts of out-of-state milk.

Most of the Division's work is carried on in the field. The district supervisor approves all licenses for processing and distribution of milk and milk products. He also licenses all milk tank truck operators, milk plant technicians, plant managers, and grades and approves out-of-state sources of production and processing.

Two dairy mobile laboratories, in addition to running routine analyses, during the past two years, have been

concentrating on special bacteriological work to determine the shelf life of all dairy products.

The series of bacteriological and chemical determinations have been made on products containing vegetable

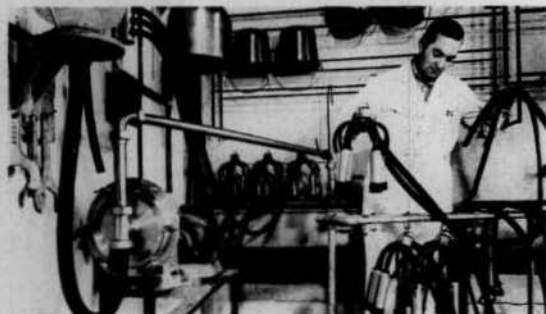


Clean dairy barns mandatory.

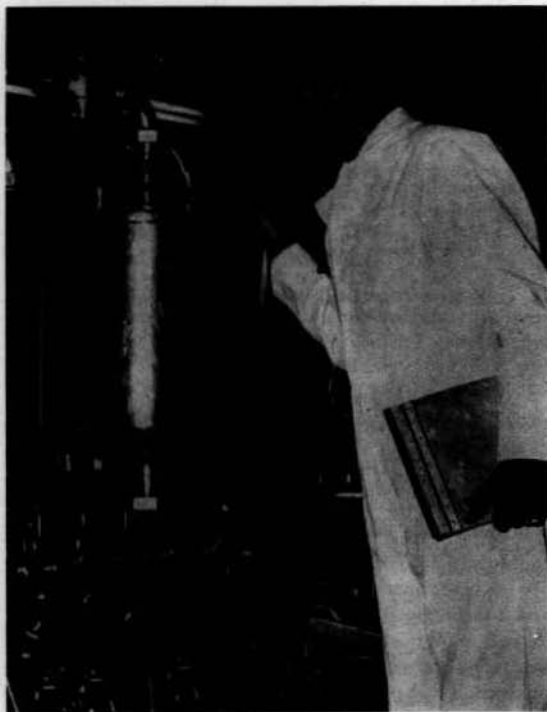
oils, such as whipped toppings and coffee whiteners. These products, for which no definitions have been provided in the Milk, Cream and Products list, are imitations of dairy products like whipped cream and coffee cream.

Another series of bacteriological examinations were made on concentrated forms of milk products, which included samples of bulk powdered milk of different grades and forms of concentrated milk. The final results of this work is a much improved quality of finished dairy products used by the consumer.

In addition to the normal work load of the Division, all dairy personnel have been working in cooperation with local county sanitarians and the State Board of Health.



Strict sanitary practices necessary.



Milk processing equipment inspected.

Division Of Fruit & Vegetable Inspection

Every part of the citrus industry is furnished with the most effective inspection possible. Through training and supervision of inspectors, cooperation and consultation with industry and other citrus agencies, and the development of better testing facilities and equipment, this Division is continually improving its service to all phases of the citrus industry.

Various activities of this Division include inspection for maturity, artificial color, grade, size, pack and the application of numerous portions of the Citrus Code and the regulations of the Florida Citrus Commission.

The inspection of vegetables, melons, nuts and miscellaneous fruit are also important parts of the Division's activities.

In addition, the Division through its Statistical Department, maintains and distributes to the industry, complete records and reports—daily, weekly, monthly, and annually. All fiscal and financial business is handled through a newly created Fiscal Department, which also supervises the auditorium and offices in the Florida Citrus Building.

The most noteworthy and tragic event of this past biennium was the great freeze of December 1962. Production and utilization of citrus were so affected that serious ab-

normal conditions resulted. Some areas were almost out of production in 1963-64, other areas seriously reduced, and except for the East Coast, all areas affected in varying degrees.

The reduced production and the subsequent effect on the economics of the industry resulted in current abnormal distribution patterns in the utilization of available fruit. Consequently, while the percentages of fruit for processing has steadily risen season by season through 1961-62 (and through the freeze season of 1962-1963), the 1963-1964 season showed a considerable gain in the percentage of fresh fruit shipments.

Recovery from the 1962-63 freeze has been more rapid than anticipated, however, and within another two or three seasons it is expected that the citrus industry will have once more entered a period of high productivity, and economics will again direct such increased production to processing channels. The report of the Citrus Section should be examined for further details of the citrus situation.

In addition to the citrus disaster, the December 1962 freeze destroyed practically all tender vegetables except those along the East Coast. Serious Division problems in personnel and financing were created which existed



Visual aids used in training.



Fruit tested with gas chromatograph.

throughout the biennium. However, in both seasons, we were fortunate in having calls from other states for transfer assignments of inspection personnel.

It is now anticipated that near-normal field operations both in citrus and vegetables can be expected again by another season.

Training

For several years, the Department has been looking for improved methods of instruction for training both new and old personnel, so that we might better carry out responsibilities of service. This involved finding the best approved methods of instruction that were available which could be applied to our needs.

With the aid and cooperation of the United States Department of Agriculture, one of the supervisors from the Division of Fruit and Vegetable Inspection was given advanced instruction at the Army Instructors' Training School at Ft. Belvoir, Virginia.

While there he received intensive training in the use of visual aids in conjunction with advanced teaching methods. Subsequently, a second employee was sent to this same school.

The first training program of this type was introduced to all Federal-State peach and peanut inspectors during the summer months of 1962, using "directed training with visual aids."

This program was carried out for two consecutive summers and proved to be the greatest single asset in improving

the performance of those inspectors, and in bringing about increased uniformity of inspection procedures.

In the fall of the next biennium, for the first time, we will apply this type of training to our citrus inspectors, beginning with the class for supervising personnel early in September, and continuing through all subsequent classes for inspectors.

Plans are now being made to apply this type training to other sections, including our fresh vegetable inspection. The Florida Citrus Commission has requested that we give this same instruction to all of their merchandising agents.

Other agencies, including the USDA Processed Fruit and Vegetable Inspection Service, are moving to this type of training program.

We are now convinced that by going to a program of "directed training with visual aids" our Division employees will be able to go out into the field and do a better job of service.

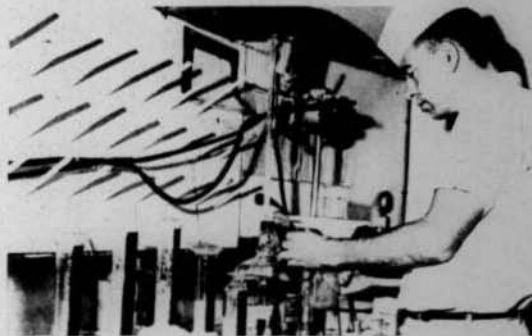
Citrus Section

This Section is responsible for the supervision of all citrus inspection except processed products and the interpretation of U. S. Grade Standards and regulations of the Florida Citrus Commission and the Growers' Marketing Committee. In addition, since this Section handles the most personnel, it operates the Personnel Department for the Division.

During the first year of the biennium, the serious freeze made the inspection program most difficult. All available



Vegetables inspected in field.



Citrus juice tested in laboratory.

personnel including vegetable inspectors which we were able to transfer back to citrus, worked many long and hard hours, days, and weeks in a gigantic effort to help the industry utilize as much of the damaged fruit as regulations permitted.

In January alone, a record movement of almost 24 million boxes was certified at processing plants.

The season ended abruptly and early, but even so, about two-thirds of the originally estimated crop was certified. The following season, with greatly reduced tonnage, produced no unusual inspection difficulties; but necessarily contributed to increased personnel problems because of fewer requirements for manpower.

Vegetable Section

It is the responsibility of the Vegetable Section to furnish inspection to growers and shippers for the purpose of determining grade, quality, and condition of fruits, vegetables, and nuts grown throughout the State. This Section also handles inspection under the Federal Marketing Agreement and Order for limes and avocados, and also inspection of farmers' stock peanuts under the price support program. With the exception of limes, avocados, and peanuts, the service is on a voluntary basis.

Most of the fruits and vegetables are highly perishable, and with adverse weather conditions and market gluts, it poses a real problem in trying to keep manpower in line with the demand for the service.

It is the policy of this Section to endeavor at all times to develop new techniques for improving the service. Possibly

more has been accomplished along this line in the inspection of farmers' stock peanuts.

Through research we have practically eliminated the human element from the inspection. We have developed and have in operation on the peanut deal, pneumatic sampler, mechanical divider, presizer, shaker and sizer screen, sheller and splitter. All of this helps to do a better job for the producer and processor.

Citrus Technical Section

This Section is responsible for all technical duties in connection with the administration of the Citrus Code. The routine duties include the program for the analysis and approval of fruit treatment materials, preparation and issuance of field equipment and chemicals for maturity testing and internal quality, the arsenic spray enforcement program, the coordination of fresh fruit testing at processing plants with the finished product inspection; and since 1961, the monitoring of pesticide residues on citrus fruits, a program which now includes the use of gas chromatography.

In addition, the development of load evaluation procedures at processing plants, including better testing methods and equipment, is a continuous field responsibility of this Section.

Although the details of all the work of this Section may be found in the annual reports of the Division, a large portion of the activities during the biennium was directed towards improvement of fresh fruit juice extractor equipment both at packing houses and processing plants. During

"There were 3,188 Citrus Fruit Dealer Licenses Issued..."

these two seasons, a mechanical juice extractor for fresh fruit testing at packing houses was tested extensively and reported favorably to the fresh fruit industry.

Discussions are under way now towards possible adoption of such new types of equipment. Continued improvements were made in the load evaluation program at processing plants, and more nearly complete mechanization is expected to be attained in the near future.

This latter work is by far the most important to the industry, and this Division's constant efforts are only part of a vast research program underwritten by the Florida Citrus Commission, the United States Department of Agriculture, and the Florida Department of Agriculture.

Citrus Bond and License Section

This Section receives approved applications from the Florida Citrus Commission of the different firms and individuals desiring to do business as citrus fruit dealers. Each applicant posts a surety or cash bond with the Commissioner of Agriculture in support of a license, with the exception of Bond-Exempt dealers who handle only their

own fruit and Non-Bonded dealers who ship express or gift packages.

Also, a new method of identification of citrus fruit dealers' agents has become part of the duties of this office in that all agents representing dealers must make application to the Commissioner of Agriculture and be fingerprinted as part of the application.

Reports of fruit handled by each licensed and bonded dealer must be made to this Section advising the amount of fruit handled to determine that each dealer has sufficient bond posted with the Commissioner of Agriculture.

Complaints are made to the Commissioner of Agriculture by filing the necessary information with this Section in support of a complaint. Producers and dealers in citrus may bring such action against any other dealer provided the facts warrant such action.

Hearings are held in which testimony is taken and from this information the Commissioner of Agriculture will enter the necessary order either affirming or denying the claim. Compliance with any order of the Commissioner of Agriculture requiring a dealer to perform or a bonding company to satisfy the Commissioner's Order is enforced by this Section.

Investigation of complaints that involve dealers in possible violation of the Florida Citrus Code and Florida Citrus Commission regulations are conducted. The examiners work closely with law enforcement agencies when any licensed dealer or his agent is involved, to determine if any action is necessary to suspend or revoke a license.

Division Of Inspection

Enforcement of many of the various regulatory laws administered by the Department of Agriculture is the responsibility of the Inspection Division.

Field men constantly travel throughout the State taking samples of various items and sending them to the State Chemist for analyses.

Inspections are made frequently to see that manufacturers comply with the standard of the law. All records pertaining to the enforcement of the laws are kept by the Division.

These laws also require the registration of the manufacturer's products, correct labeling as to net weight, guaranteed analysis and ingredient statement.

During the period covered by this report the Division of Inspection continued to update and expand its services proportionately with the growth and needs of our consumers, producers and processors.

Basic inspection techniques were supplemented with advanced methodology which resulted in the detection and destruction of more than 6 million pounds of unsafe or questionable foodstuffs during this biennium, as opposed to 1,151,063 pounds during the previous two years.

Individual brand registrations of fertilizers and pesticides showed a marked increase, as did the acreage devoted to certified peanuts.

The number of feed samples collected during this period well exceeded that during the 1960-62 period. Much interest was placed on sampling feeds for pesticide residues.

To accommodate the traffic on the newly opened Interstate Highway 75, two new road guard stations were installed.



Meat inspected in retail markets.

The crippling freeze of 1962 reduced the citrus traffic; however, the overall traffic involving other commodities showed an increase.

With the recovery of the citrus industry, it is anticipated that the traffic passing the road guard stations will exceed any previous high.



Eggs candled in food stores.



Fertilizer samples drawn by inspector.

Division Of Marketing

Since the creation of the Division of Marketing in 1961, its services to business and the consumer have consistently widened in scope.

The major area of activity of the Administration Section during this period has been in the development of the SunFLAVOR program.

An official seal of quality design was developed around the word "SunFLAVOR," and a comprehensive program was formulated where SunFLAVOR quality standards and general operational procedures were developed for some 23 commodities. Pilot programs were conducted on potatoes, sweet corn and watermelons during the spring of 1964.

The administration of the celery and sweet corn marketing orders were another function of this Section. These programs are designed to establish and maintain orderly marketing conditions for celery and sweet corn moving in or affecting interstate commerce, at fair prices to the consumer; and with equitable return to the producer-handler.

Their purpose is to give to the farmer some of the marketing advantages long enjoyed by industry.

These programs differ from most agricultural services offered by state departments of agriculture in that they combine voluntary and regulatory control—initiated, set up

and directed by the industry with counsel from the Florida Department of Agriculture.

Each industry bears the costs of the major part of administration of the programs. These programs demand aggressive group participation in their operation and development, with resultant interest and emphasis placed upon furthering agricultural private enterprise.

Similar forward strides are being made by the other five sections in the Division of Marketing.

State Farmers' Markets

There are 14 Florida State Farmers' Markets owned and operated as a section within the Division of Marketing.

Largely self-supporting, these markets are maintained through income from a combination of package fees, platform space, packing house and office rentals, commissions, concessions, etc.

Fundamentally, these markets are "built for service" to local producers and buyers. Their function is to provide facilities for assembling and marketing Florida produce. Through volume production and marketing, effective competition is assured for both small and large growers and buyers.

Marketing Advisory Committees have been organized for several markets, and are proving to be quite beneficial in upgrading produce shipped through markets, as well as increasing services rendered.

Services offered, as well as methods of sale, vary from market to market. They include auctions, direct sales, broker sales, and others with shipping point inspection available. Produce is often sold by samples, resulting in satisfaction to both producers and buyers. The volume varies greatly—from carlots to small truck loads, supplying purchasers' needs in numerous varieties of excellent quality produce.

Each State Farmers' Market is managed by a local full-time manager and personnel who provide assistance in selling produce grown or shipped into the area. The markets are opened on a seasonal basis from September to June. However, managers are available at all times to assist growers in planning their farming activities, as well as marketing produce.

License & Bond Section

In order to reduce grower risks, the Division of Marketing has a section that licenses and bonds all those who buy and handle agricultural goods.

Four field men were sent into the agricultural areas of the State this biennium. They made 3,241 contacts with potential and prospective licensees or unlicensed dealers.

They also made 6,672 other personal contacts in an effort to obtain information on the activities of unlicensed



Merchandising specialists set up displays.

dealers, and explain the requirements and provisions of the Agricultural Bond and License Statute to dealers and producers.

Market Expansion—Promotion Section

The Market Expansion-Promotion Section has been concentrating on marketing effectiveness through promotional services. Promotions help sell more effectively what is already being produced so efficiently—for, no matter how efficiently the farmer produces his survival is not assured until the sale is profitably completed.

The industry is served with four basic promotional tools—merchandising, advertising, publicity and public relations.

In its first three seasons, the Section assisted commodity groups in developing warehousing, and distributing more than 4 million pieces of colorful point-of-sale material boosting Florida farm products such as celery, sweet corn, new potatoes, pole beans, avocados, limes, strawberries and gave other promotional aid to the sale of such commodities as beef, eggs and watermelons. More than 6,000 executive-level personal contacts were made by merchandising field men on behalf of Florida agriculture to set up thousands of in-store promotions.

ADVERTISING

The most expensive tool in the promotion is advertising, and we have moved cautiously in investing public funds here. Since the retail-wholesale food trade's cooperation is



SunFLAVOR promotion gets under way.

absolutely necessary for the success of promotions, the Section has concentrated most of the advertising to date into trade journals, but an expansion into the consumer press is anticipated as the SunFLAVOR Seal of Quality program gains momentum.

PUBLICITY

Publicity has been developed tending to cast Florida agriculture in a more favorable light throughout the nation in food and agriculture circles, but the greatest amount of "exposure" has been through the food pages of major daily newspapers across the country and through the natural news value of the state's new SunFLAVOR Seal of Quality program.

Stories and pictures on Florida foods and a variety of appealing uses for them have been developed and dis-



Livestock reports compiled daily.

tributed nationwide for publication in the consumer press. A concerted effort to educate Florida citizens on the benefits of the SunFLavor program—to the state's economy as well as to them as consumers—also has been made.

PUBLIC RELATIONS

The story of Florida agriculture in general and SunFLavor in particular has been told throughout Florida, in the Midwest and the populous East through numerous public appearances by Commissioner Conner and by Division of Marketing personnel. Many of these appearances—including public meetings, radio and television interview shows have been arranged by this Section. This phase of the promotional program will be stepped up considerably when a consumer marketing specialist is added to the staff.

Marketing Bureau Section

The Marketing Bureau Section has continued to collect factual and current market news information and disseminate it to all segments of the industry.

The annual Agricultural Statistical Summary has been published by commodity groups in cooperation with the Crop and Livestock Reporting Service. They are used by business firms and professional workers who are as much interested in our data on agricultural trends as are the growers.

FRUITS AND VEGETABLES

The Bureau's fruit and vegetable activities center around one Marketing Specialist in Jacksonville and six seasonal field offices, which are maintained in cooperation with the USDA, to keep growers, shippers, buyers and other interested persons advised on the daily trading of produce both at shipping point and the northern city markets.

In Jacksonville, reports on the daily truck movement of Florida vegetables and miscellaneous fruits were compiled as well as cut flower shipments which move via rail, truck and air freight. The daily shipments of these items were sent over 12,000 miles of leased wire to Market News centers throughout the nation, where the information becomes available to local traders. With Florida a key source for winter produce, the information compiled here is of vital importance to the people directly involved in the selling and buying of fruits, vegetables and flowers.

Weekly and seasonal shipment reports were published on fruits, vegetables and flowers. Annual statistical sum-

maries were issued in cooperation with the Florida Crop and Livestock Reporting Service. A special radio write-up was sent on the AP and UPI press wire during the watermelon season.

Various records pertaining to horticultural Market News were kept, which were quite helpful in the preparation of special reports that were frequently requested by the industry. Studies on the better presentation of Market News material on a daily and weekly basis were done, which is a part of our continuing program to improve the service to the industry.

Field stations at Sanford, Belle Glade, Pompano and Hastings were opened during the commercial vegetable season, to report on prices in the areas and to keep traders of the various vegetables in the state advised on all shipping point quotations, as well as those in the leading city markets. Shipments, city market arrivals and track inventories were also distributed in the area.

The reporter at Florida City in South Dade County covers vegetables and subtropical fruits, and the office there is open all year. The Lakeland reporter publishes shipment data for citrus and northern auction prices, and also watermelon information for the State. The Pompano, Belle Glade and Sanford newsmen all have radio programs, for which they prepare daily news write-ups.

One of the most interesting of the new services started in the last biennium was at the Belle Glade office. The reporter was able to set up arrangements through vegetable shippers in the Lake Okeechobee area to get tied in on the 8:30 A. M. conference phone to give them today's New



Personal contacts made with Northern buyers.

York price, as well as the Texas cabbage FOB, and the past day's harvest for the various commodities produced around the "Lake."

Shippers say this is quite a valuable service, since they are able to get several important price indicators at the beginning of their day's business.

POULTRY AND EGG

Florida egg production and allied services continued to grow and expand at an accelerated pace during the 1962-64 biennium. The number of layers increased 1½ million and the total number of eggs produced was up 36 percent.

Within a period of five years Florida has moved rapidly from a deficit producing state to one of self sufficiency, and during certain periods, a surplus status.

This dramatic growth brought about drastic changes in the marketing of eggs and poultry products. As a result, the Bureau increased its services in the area of marketing and expanded Market News activity through increased dissemination of information designed to aid industry members in decision making.

In the area of Marketing, significant activities and accomplishments included participation in the Surplus Egg Marketing Program. This program was formulated by a Marketing Committee of the Division of Markets to aid the industry in the marketing of surplus eggs during the 1963 Post-Easter period.

A Bureau poultry products specialist participated in formulating the plan and acted as coordinator of a Clearing House—a focal point of this program. Supplies were expedited for

"Breaking" plants. Puerto Rican buyers were contacted and lists of potential users developed.

Northern metropolitan markets were surveyed by a Division of Markets merchandising specialist and valuable information compiled for use by Florida egg dealers and shippers. Although egg receipts were high—exceeding previous Post-Easter periods—clearance was good and serious accumulations avoided.

The Surplus Egg Marketing Program was instrumental in this achievement. Perhaps, however, it's most effective accomplishment was development of potential markets and marketing information which dealers used effectively during the 1964 Post-Easter period.

Marketing specialists:

- (a) Assisted industry members in processing plant planning and equipment layout.
- (b) Assisted Commissary Procurement Office of a large Air Force Base in preparing specifications for egg requirements. This has resulted in the use of Florida eggs exclusively.
- (c) Located sources of chick parts for cat food manufacturer. This service aided processor and provided a market for surplus chicken meat.
- (d) Worked in close cooperation with Market News Reports in an effort to maintain supply-demand stability on a continuing basis. Efforts are made to locate outlets for eggs from surplus producing areas

and supplies for reverse situations. This service is instrumental in moving a considerable volume of eggs each year.

- (e) Cooperated with WTVT-TV in developing a noon program to provide "Today's Poultry and Egg Prices" for Tampa area poultrymen.

LIVESTOCK

The livestock industry has been kept abreast of price information by daily and weekly reports issued from Thomasville, Georgia. This cooperative effort with the USDA makes detailed prices by classes and grades from 16 auction markets, direct sales information on cattle, and auction prices on hogs readily available to the trade.

Florida has more specific livestock market information available than any other state. Interstate movements are tabulated in detail and have proven extremely useful, as have numbers marketed, detailed average prices and weights by class and grade, on an area and state basis.

Marketing specialists have served on several grading and evaluation Committees at various shows and in local county livestock improvement programs.

Grading calves on ranches in producing-testing work was another phase of our marketing work, as well as sorting calves at special feeder sales. Grading studies were done in cooperation with the USDA and Florida Agricultural Experiment Stations.

During the 1962-64 period, graded sales of both feeder pigs and feeder calves were begun in Florida. Marketing specialists have played the major part in these sales in obtaining consignments, field inspections, grading and summarizing results. The results have been quite gratifying to the livestock industry in increased returns.

Florida Crop and Livestock Reporting Service

As a service to Florida's dynamic agriculture, the Division cooperates with the USDA in developing and publishing crop and livestock production statistics. Headquarters of this function are in Orlando.

Widely publicized for its citrus forecasts, the Agricultural Statistician's office is a source of statistics on all phases of agriculture. Much of the data is collected in cooperation with other Department agencies. This Service assists in answering numerous requests for data on the State's agriculture.

Division Of Plant Industry

The Division of Plant Industry has the broad responsibility of protecting the agricultural and horticultural interests of the State by carrying out control, containment or eradication programs against injurious pests.

It also protects the apiary industry from contagious and infectious diseases of honeybees, utilizing control or eradication measures.

Benefits obtained by the following successful eradication programs conducted by the Division of Plant Industry have had great impact upon the economy and agricultural industries of the State:

- (1) Eradiction of citrus canker—1914-32.
- (2) Eradication of Mediterranean fruit fly—1929-30.
- (3) Eradication of citrus blackfly—1934-38.
- (4) Eradication of stellate scale—1953-55.
- (5) Eradication of Mediterranean fruit fly—1956-57.
- (6) Eradication of erinose mite—1957-58.
- (7) Eradication of Mediterranean fruit fly—1962-63.
- (8) Eradication of Mediterranean fruit fly—1963.

The Division of Plant Industry is comprised of five sections.

Apiary Section

The Apiary Section enforces the honeybee disease law to prevent the introduction and dissemination of contagious honeybee diseases in Florida through inspection, quarantine, and elimination of infected colonies.

A revision of the Florida Bee Disease Law approved by the 1963 State Legislature now requires beekeepers to identify each apiary with the owner's name, address and telephone number.

Entomology

The duty of this Section is to identify insects and mites submitted by Division plant-inspectors and other persons, conduct surveys of agricultural and horticultural crops to determine the insect population present, and to build a general reference collection, describe new arthropod species found in surveys and to evaluate existing published, scientific works.

There were 22,867 identifications made by the entomologists during the biennium (an identification may consist of one or of many specimens).



Training prepares plant inspectors for duties.



Honeybees checked for possible diseases.

Fumigation tests for the camellia mining scale were conducted at Largo, Pinellas County, and the results were encouraging. This scale was reported only in Pinellas and Hillsborough Counties.

The pink citrus rust mite has been found in 20 counties and may prove to be more difficult to control than the citrus rust mite.

Insecticide tests on foliage plants were conducted in the Duval County area. Little data for insect control on foliage plants is available.

Nematology Section

Division nematologists identify specimens collected by inspectors and carry out limited investigational work.

The Nematology Section processed 9,402 soil samples at the Gainesville Laboratory (diagnostic). This was an increase of 67 percent over the 1960-62 biennium. An additional 343 samples were processed in cooperation with the Entomology and Plant Pathology Sections.

An annual survey of caladiums was begun in July 1963. A survey also was made of nematodes infesting cabbage palms in the Everglades. Another survey was conducted to determine distribution of the pseudo-root-knot nematode of turf.

A chart was formulated which enables plant specialists to determine the number of samples to take from an area. Two new soil sub-sampling tools, one for the greenhouse and one for the field, were distributed to Division plant specialists.

An investigation of the relationship between root-knot nematode and crown gall bacteria was initiated.

Three of the four host testing programs in progress during the biennium were completed.

Plant Inspection Section

The Plant Inspection Section performs all of the necessary plant inspection and regulatory work, and supervises the registration and certification programs administered by the Division.

Following are several examples of the Section's activities.

After a conference with plant industry officials, the California Department of Agriculture modified its corn regulations. Future corn shipments to California are to be based on field-treatment certification, as opposed to the actual field inspections required in the past. This modification was essential since the increased use of parathion by corn growers not only had made field inspections obsolete, but was creating a health hazard for Division inspectors.

An investigation by the Division's technical staff proved that the root-knot nematode can be killed in caladium tubers by hot water treating at 122° F for 30 minutes duration. This discovery will open markets for the State's caladium growers that were previously denied the outlets because of certification restrictions.

Two major fruit fly eradication campaigns were brought to a successful conclusion. Florida's third infestation of the Mediterranean fruit fly (medfly), June 8, 1962, to May 7,

1963, was confined to Dade, Broward and Palm Beach Counties and cost the State and Federal government approximately \$1,000,000. The fourth campaign, June 17, 1963, to November 26, 1963, was confined to Dade County and cost about \$120,000 in State and Federal funds.

It is estimated that 9,000 acres of Florida citrus are infested with the burrowing nematode, the casual agent of spreading decline. Buffers (fumigated soil strips) have been placed around 6,615 acres. A total of 1,822 commercial groves have been found infested with the burrowing nematode. Of these properties, 881 have been pushed and treated and 58 have been buffered. This leaves 360 infested groves that should be pushed and treated or buffered.

Citrus nurseries throughout the State were hard hit by the December, 1962, freeze. The Budwood Office served as a clearing house for information on citrus propagative material not ruined by the freeze. To forestall large scale use of virus infected propagative material, a service was instituted to assure full utilization of registered budwood supplies.

As of June 30, 1962, some 98,989 buds from the Division's Budwood Foundation source trees have been distributed to more than 100 persons seeking to establish their own scion plantings of superior virus-free trees. Production of registered nursery trees for the report period totaled 4,905,607, nearly 2,000,000 more than were grown in the preceding nine years.

The Budwood Office was moved in October 1963, from its downtown Winter Haven location to a newly construct-

ed wing of the Division's Cowperthwaite Building on the Lake Alfred Road.

Two important changes in the Budwood Registration program were made. (1) Participants were allowed until February 1, 1964, to apply for registration of scion groves previously declared eligible. Registration now must take place within six months after eligibility is attained (normally two years from planting). (2) Parent and scion trees that become infected with tristeza remain in the program.

A fruit and tree damage survey was conducted December 26-30, 1962, in cooperation with the United States Department of Agriculture Statistical Reporting Service to determine the December 13 freeze damage to fruit and trees.

Another survey was begun in July, 1963, on all sample properties as well as all new properties for the years 1961-62 and 1962-63 to determine the full extent of damage from the freeze and to bring the current survey up to date.

A sum of \$250,000 was appropriated by the 1963 State Legislature for a cooperative Imported Fire Ant Control Program between the State of Florida, the United States Department of Agriculture, and the individual landowner concerned. The program was operated through a county fire ant committee which determines the areas to be treated with the funds available for that particular area.

A total of 93,115 acres has been treated since the program was begun in the fall of 1963. The material or bait used was mirex, a non-residual which consists of a food material (soybean oil), a toxicant (mirex), and a granular carrier (corn cob grits) for the food material and toxicant.

Mirex can be used on any type land regardless of its usage, and it is not hazardous to fish and wildlife.

White-fringed beetle quarantine boundaries in Leon, Gadsden and Liberty Counties were extended, following the discovery of new beetle infestations by United States Department of Agriculture personnel.

The Division's 14-week Plant Inspector Training School graduated 14 trainees (all college graduates) during the biennium. The school, recognized by other state and federal agricultural agencies as the most comprehensive in the country, offers a curriculum that covers every facet of the Division's responsibility.

A revised Grades and Standards for Nursery Plants, Part I, book was published and more than 10,000 copies distributed to Florida residents in 1963. The manual has 126 pages with nearly 300 illustrations explaining the grading of nursery plants.

Work has begun on Grades and Standards for Nursery Plants, Part II, which will deal with trees and palms. The Division produced an 8-minute motion picture (sound and color) on Grades and Standards.

Other ways in which the program was promoted included exhibits in several expositions, the printing of a three-page folder, 17x22 inch wall chart in color explaining the program, preparation of special articles to newspapers and magazines, and the airing of a number of Grades and Standards television and radio programs.

A new nematode pest of turf, *Hyphoperine grammis*, was discovered in a certified planting the latter part of the bi-

ennium. A total of 5,403,380 square feet of turfgrass was moved under the blue tag certification during the biennium as compared to 1,283,038 square feet moved during 1960-62. This is over a 300 percent increase and represents the largest volume ever sold in the Turfgrass Certification Program's history.

Although the responsibility of inspection and certification of citrus fruits not requiring fumigation was assumed by the Division of Fruit and Vegetable Inspection on July 1, 1962, the Division of Plant Industry was responsible for certification of citrus fruits requiring fumigation and less-than-carload shipments from points other than packing houses.

The Division of Plant Industry certified 3,926 standard boxes of fumigated citrus and 158 boxes of unfumigated citrus to California and 1,843 standard boxes of fumigated citrus to Arizona. Most of the 30,000,000 pounds of citrus fruits imported from the Caribbean area and some South American countries following the severe December 1962 freeze had to be fumigated and then certified by the Division of Plant Industry.

Plant Pathology Section

This Section cultures and makes identifications of disease specimens collected by inspectors and other cooperating agencies and individuals. Limited investigational work is also carried out.

The Plant Pathology Section processed 7,377 plant specimens, an increase of 43.1 percent over the 1960-62 biennium. Personnel at the Winter Haven Laboratory in-

dexed 10,616 citrus trees for tristeza, an increase of 22.3 percent over the 1960-62 biennium.

The coconut malady (lethal yellowing) investigation in the Key West area was given an added impetus with the ad-



Plants checked for nematode infestation.

dition of an insect-proof screened building designed to assist the technical sections in the search for the causal agent.

The building and other assistance was provided by the U. S. Navy Bureau of Yards and Docks in cooperation with the U. S. Navy Air Station at Key West. Life history and vector studies of a whitefly, *Aleurodicus* new species, were initiated by the Entomology Section in connection with the lethal yellows problem.

Information and Education

Many informational and educational services were offered to the plant industry, state and federal agencies, educational institutions, and to the general public.

All news media—daily and weekly newspapers, wire services, magazines, house organs, periodicals, special publications, and radio and television stations—were utilized to disseminate information pertaining to the Division's wide range of responsibilities and its activities to protect Florida agriculture.

The Division's quarterly **News Bulletin**, a printed tabloid newspaper with a controlled circulation of 8,000, carried changes in rules and regulations, and articles prepared by the technical and regulatory staff.

Publications prepared and published by the Division included the Grades and Standards for Nursery Plants, Part I; a Grades and Standards for Nursery Plants folder; a Grove Census and Citrus Survey folder; the Division's Twenty-Fourth Biennial Report; and the monthly Tri-ology Technical Report.

Three major motion picture films, all in sound and color, were produced. These were *The Medfly in Florida*; *The Plight of the Honeybee*; and *A Modern Nursery Rhyme*.

Work also was begun on two films which will be completed within the next biennium. Films produced for television stations included several five-minute news clips dealing with the third and fourth medfly campaigns in Florida and the Grades and Standards for Nursery Plants Program.

The Division placed exhibits in 27 shows, fairs and society meetings. The displays ranged from a 6-square foot poster to 300-square foot exposition booths.

Among the subject areas depicted were the medfly eradication programs, including a permanent display in the Dade County Museum of Science and Natural History; certified turfgrass; apiary inspection; grades and standards for nursery plants; and the role played by the Division's plant specialists in Florida's agricultural industry.

Building Dedicated

The Division of Plant Industry's Winter Haven office building and laboratory facilities, located on a 10-acre tract on U.S. Highway 17 (Lake Alfred Road) just north of the Winter Haven city limits, were named in honor of the late Dr. William C. Cowperthwaite in a dedication ceremony on March 13, 1964.

Dr. Cowperthwaite was one of 10 persons who lost their lives in an airplane crash on February 3, 1964, at Gainesville, Florida.

Division Of Standards

The work of the Division of Standards is primarily oriented to protecting the consuming public, but service is also rendered to the affected industries.

This is especially true of the work done by the Weights & Measures Section of the Division, whose accurate calibration of the weighing and measuring devices throughout the State assures a fair transaction to both the buyer and seller.

This is important because Florida is a state of many producers, as well as consumers.

In the Gasoline & Oil Section of the Division the inspection of petroleum products from both a quality and quantity standpoint is designed to protect the consumer. However, the accurate calibration of pumps and meters dispensing these products serves as a safeguard for all parties concerned.

The numerous analyses made by this Section serves to protect the public from sub-standard products, and also points out to the industry careless or unscrupulous operators.

Weights & Measures Section

During the biennium the Weights & Measures Section made routine inspections of numerous types of weighing and measuring devices. Among them were 98,768 small scales, 25,369 large scales, 2,201 vehicle scales, 1,289 livestock scales, 3,104 prescription scales, and 89,239 prescription weights.

In March of 1963, routine inspections were begun on fabric measuring devices and linear measuring devices. This new work is another service which benefits both the buyer and seller.

During the biennium inspectors spent many man hours on non-routine assignments, such as the calibration of farm milk tanks, the measurement of bales of peatmoss and checking the volume of containers for cabbage. Personnel were also called on for many special jobs ranging from the calibration of equipment used by the Missile Test Center at Cape Kennedy to the measurement of monofilament fishing line, and the certification of scales used to weigh record breaking fish caught in the waters off the coast of Florida.

Gasoline & Oil Section

During the two-year period, the Gasoline & Oil Section, in its enforcement of the laws governing both the quality and quantity of petroleum products offered for sale to the public, analyzed 111,883 gasoline samples, 30,697 kerosene samples, and 1,998 samples of other products. They also tested for accuracy of measurement 277,197 gasoline pumps, 56,811 kerosene pumps, and 10,893 pumps dispensing other products.

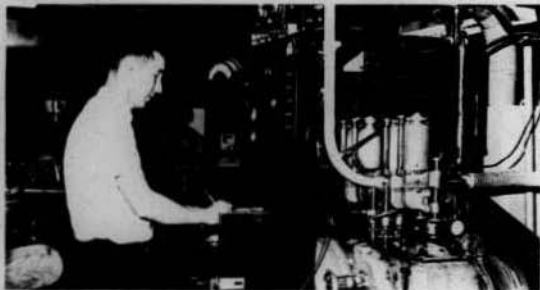
In addition to these, 8,400 vehicle tank compartments used as measures and 8,227 wholesale meters were calibrated.

Recently, a method of analyzing mixtures of gasoline and oil used as outboard motor fuels was developed, and during this biennium the inspection of pre-mixed outboard

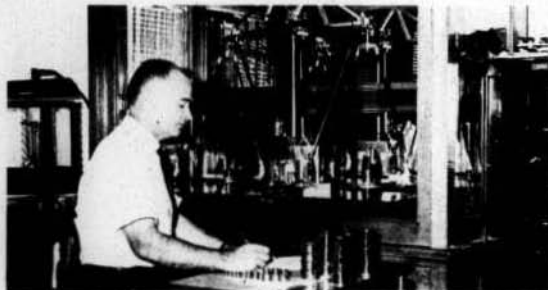
motor fuels and pumps capable of blending these fuels, were placed under routine duties.

The Division is also responsible for the enforcement of the Florida Brake Fluid Law, which regulates the quality of this fluid which may be offered for sale in the State. A total of 462 samples of these fluids were analyzed during the two-year period and more than 1,000 inspections were made at service stations, garages, and wholesale distribution points to check for misbranded or unregistered brake fluids.

In addition to their regular jobs, many people of this Division have been assigned various responsibilities in this state's Civil Defense program. They have spent many man hours attending schools and training sessions to better qualify themselves for emergency duty in the event of a national disaster.



Gasoline samples tested.

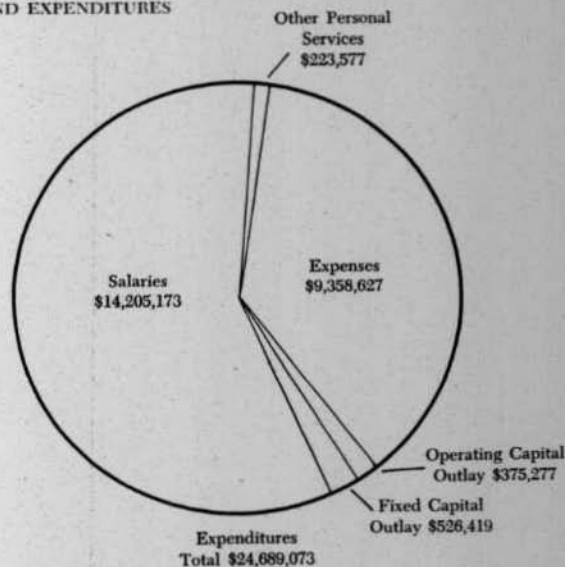
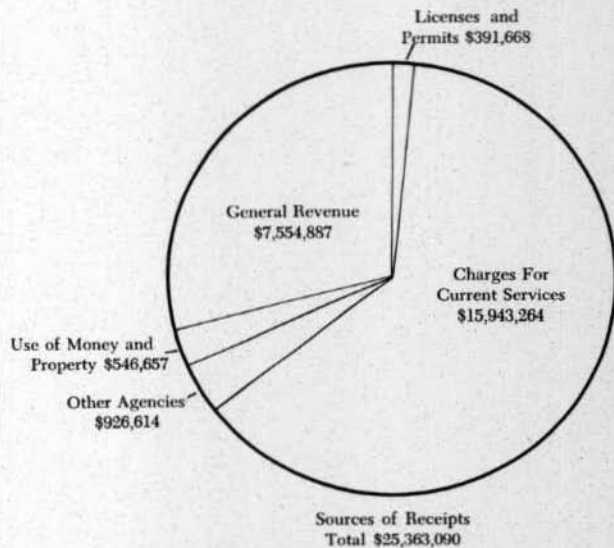


Weights tested for accuracy.

Florida Department of Agriculture Statistical Data

(The following statistics cover the period July 1, 1962 to June 30, 1964, unless otherwise indicated)

STATE DEPARTMENT OF AGRICULTURE DEPARTMENT RECEIPTS AND EXPENDITURES



BRUCELLOSIS AND TUBERCULOSIS ACTIVITIES**BRUCELLOSIS**

Number of Cattle Tested	458,268
Percent of Cattle Infected	1.58
Number of Swine Tested	8,718
Percent of Swine Infected	7.39
Number of Calves Vaccinated	285,964

TUBERCULOSIS

Number of Cattle Tested	394,854
Percent of Cattle Infected	0.09

DATA RELATING TO HOG CHOLERA ACTIVITIES

Number of Garbage Feeders	942
Number of Swine Fed Garbage	64,901
Number of Swine Vaccinated	619,395

PESTICIDE RESIDUE ANALYSIS

Number of Samples Analyzed	4,417
Number of Analyses	6,517
Number of Samples Adulterated	274

FOOD SAMPLES ANALYZED

Number of Official Samples	3,265
Number of Special Samples	384
Number Found Legal	2,346
Total Number of Violations	936
Lah Determinations	26,700

FERTILIZER SAMPLES ANALYZED

Official Fertilizer Samples	13,673
All Other Samples Analyzed	7,389
Number Found Legal	12,058
Number Found Deficient	1,615
Number Stop-Saled	112
Total Determinations	155,212

SEED SAMPLES ANALYZED

Number of Samples	9,663
Number Found Legal	7,808
Number Mislabeled	1,546
Number Found Illegal	309

DAIRY MOBILE LABORATORIES (TESTS)

Number of Milk and Cream Samples	1,876
Number of Milk and Cream Tests	14,251
Number of Frozen Dessert Samples	3,979
Number of Frozen Dessert Tests	14,325
Number of Cheese Samples	67
Number of Cheese Tests	1,379
Milk Plants' Laboratories Approved for Bacteriological and Chemical Examinations of Milk and Milk Products	54
Samples Collected by Laboratory Personnel	1,645
Units of Ice Cream Weighed	941

POULTRY LAW ENFORCEMENT

Number of Inspections	84,404
Poultry Stop-Saled (pounds)	65,205
Poultry Destroyed (pounds)	14,896
Irregularity Reports	256

EGG LAW ENFORCEMENT

Number of Inspections	122,133
Eggs Stop-Saled (cases)	2,758
Eggs Destroyed (dozens)	6,694
Irregularity Reports Issued	249

FOOD LAW ENFORCEMENT

Number of Inspections	145,086
Food Stop-Saled (pounds)	954,995
Food Stop-Saled (packages)	154,208
Impure or Adulterated Food Destroyed (pounds)	6,114,007
Impure or Adulterated Food Destroyed (packages)	475,889
Irregularity Reports Issued	923

COMMERCIAL FEED LAW ENFORCEMENT

Number of Inspections	142,166
Stock Feed Stop-Saled (pounds)	1,142,000
Stock Feed Destroyed (pounds)	700
Pet Food Stop-Saled (pounds)	2,476
Pet Food Stop-Saled (cans)	268,224
Pet Food Destroyed (pounds)	318
Pet Food Destroyed (cans)	97
Irregularity Reports Issued	638

PESTICIDE SAMPLES ANALYZED

Number of Samples	7,024
Number of Analyses	14,596
Number of Legal Samples	6,411
Number of Deficient and Misbranded Samples	613

FEED LABORATORY ANALYSES

Number of Official Samples Analyzed	9,521
Number of Special Samples Analyzed	666
Number of Illegal Samples	1,242
Percent of Illegal Samples	13.0
Official Determinations Made	88,840
Special Determinations Made	2,602

**FLORIDA MILK & FROZEN DESSERTS LAWS
ENFORCEMENT**

Number of Inspections	16,984
Number of Samples	6,898
Number of Licenses Issued	3,485
H-T, S-T Pasterurizer Checked	92

**FLORIDA CERTIFICATION SEED LAW
CERTIFIED SEED, CROP OF 1962**

Kind	Acres	Pounds of Seed
		Tagged and Sealed
Cucumber	5	207
Lupine	90	50,500
Oats	181	166,080
Okra	17	4,603
Peanuts	7,307	4,123,163
Watermelons	499	57,079
Wheat	176	233,640

**FLORIDA CERTIFICATION SEED LAW
CERTIFIED SEED, CROP OF 1963**

Kind	Acres	Pounds of Seed
		Tagged and Sealed
Oats	90	None
Peanuts	8,437	6,013,800
Soybeans	216	73,175
Watermelons	381	45,491
Wheat	358	414,240

PESTICIDE LAW ENFORCEMENT

Number of Inspections	174,604
Pesticide Stop-Saled (pounds)	296,641
Pesticide Stop-Saled (gallons)	26,620
Pesticide Stop-Saled (containers less than 1 lb.)	75,551
Pesticide Destroyed (pounds)	114,005
Pesticide Destroyed (gallons)	12,141
Irregularity Reports Issued	4,599

HONEYBEE DISEASE LAW ENFORCEMENT

Number of Apiaries Inspected	10,727
Number of Colonies Destroyed	3,160
Number of Colonies Allowed into Florida	50,926
Certificates of Inspection Issued	136
Special Moving Permits Issued	1,247

PESTICIDE DEALERS, IMPORTERS AND MANUFACTURERS REGISTERED WITH FLORIDA
DEPARTMENT OF AGRICULTURE
(1964 Calendar Year)

1,186

BRANDS OF PESTICIDES REGISTERED WITH
FLORIDA DEPARTMENT OF AGRICULTURE
(1964 Calendar Year)

10,193

BRANDS OF MIXED FERTILIZERS AND FERTILIZER MATERIALS REGISTERED WITH FLORIDA
DEPARTMENT OF AGRICULTURE
(As of June 30, 1964)

Number Registered 42,000

PAID SEED DEALERS' PERMITS

Receipts from Permits \$72,950

FERTILIZER DEALERS, IMPORTERS AND MANUFACTURERS REGISTERED WITH FLORIDA
DEPARTMENT OF AGRICULTURE
(As of June 30, 1964)

Number Registered 448

DISPOSITION OF FLORIDA CITRUS

(Boxes)

Certified Fresh Fruit Shipments					
Grapefruit	25,109,524	Tangelos	22,000		
Murcotts	139,038	Oranges	1,309,895		
Tangelos	975,578	Tangerines	14,900		
Oranges	17,410,118	Inter-State By-Products			
Tangerines	3,662,779	Grapefruit	1,212		
Cannery Commercial		Murcotts	None		
Grapefruit	27,712,434	Tangelos	None		
Murcotts	167,948	Oranges	111,991		
Tangelos	383,848	Tangerines	None		
Oranges	108,108,086	Intra-State Non-Comemrcial			
Tangerines	1,532,881	Grapefruit	3,315,361		
Express Shipments		Murcotts	52,514		
Grapefruit	428,900	Tangelos	268,574		
Murcotts	10,500	Oranges	8,731,855		
		Tangerines	389,546		

COMMERCIAL FERTILIZER LAW ENFORCEMENT

Number of Inspections	75,111
Fertilizer Stop-Saled (pounds)	1,644,000
Fertilizer Destroyed (pounds)	118,000
Irregularity Reports Issued	480

SEED LAW ENFORCEMENT

Number of Inspections	44,093
Seeds Stop-Saled (pounds)	914,323
Seeds Destroyed (pounds)	73,168
Irregularity Reports Issued	229

VEGETABLES, NUTS, AVOCADOS AND MELONS

CERTIFIED FOR SHIPMENT

Avocados (pounds)	54,069,922	Parsley (bushels)	17,698
Beans (bushels)	32,992	Peaches (bushels)	16,745
Broccoli (bushels)	523	Peanuts	
Cabbage (bags)	422,063	Shelled (pounds)	115,863,289
Cabbage (crates)	2,383,540	F. S.—Commercial (tons)	45,221.14
Carrots (bushels)	63,324	F. S.—C.C.C. (tons)	8,652.70
Cauliflower (1¼ bushels)	1,754	F. S.—Regrades (tons)	58,458.38
Celery (crates)	11,981,014	F. S.—Outgrades (tons)	10,840.02
Chicory (bushels)	336	Peppers (bushels)	662,284
Chinese Cabbage (bushels)	554	Potatoes (100 pound bags)	3,693,707
Corn (crates)	12,287,595	Radishes (bushels)	50,697
Cucumbers (bushels)	319,037	Romaine (1-1/9 bushels)	5,584
Dill (bushels)	317	Squash (bushels)	25,422
Eggplant (bushels)	24,307	Strawberries (24-pint crates)	115,067
Endive (bushels)	22,276	Tomatoes (bushels)	10,336,148
Escarole (bushels)	22,687	Watermelons (melon)	5,301,858
Lettuce (L. A. crates)	23,710	Imported Vegetables—Plantains (package)	1,027
Limes (bushels)	652,403	Imported Oranges (1-3/5 bushels)	77,167
Onions (crates)	464	Cannery Peas (pounds)	1,463,811

CITRUS BOND & LICENSE SECTION—PART I

Dealers Posting Surety Bonds	1,596
Amount of Surety Bonds	\$22,270,500
Dealers Posting Cash Bonds	7
Amount of Cash Bonds	\$14,000
Amount of Inspection for Guarantee Bonds	\$968,103.55
Dealers Posting Performance Bonds	318
Amount of Performance Bonds	\$318,000
Licenses Issued to Bond Exempt Dealers	192
Licenses Issued to Non-Bonded Express and Gift Fruit Shippers	1,379
Certificates (FCC Reg. 31, Sec. 3) Issued on Request to Dealers Posting Performance Bonds	219
All Citrus Fruit Dealer's Licenses Issued	3,188
Manufacturers Licenses Issued	47
Citrus Packing Houses Registered	439
Canning and/or Concentrate Plants Regis- tered	117
Registered Agents of Citrus Fruit Dealers	839

CITRUS BOND & LICENSE SECTION—PART II

Complaints Disposed Of	57
Complaints Pending	29
Amount Paid to Claimants by Dealers	\$37,251.36
Administrative Hearings	29
Bond Increase Orders Entered by Commis- sioner of Agriculture	125
Licenses Revoked by Commisisoner of Agri- culture	4
Licenses Suspended by Commissioner of Agri- culture	15
Licenses Cancelled by Commisisoner of Agri- culture	10
Complaints Paid by Out-of-State Purchasers Against Express Gift Fruit Shippers	151
Amount Paid by Out-of-State Purchasers Against Express Gift Fruit Shippers	\$978.75
Licenses Suspended and Reinstated	2
Investigations of Fruit Thefts, Violations of Citrus Code, etc.	22

ANNUAL MASTER COMMERCIAL FEED REGISTRATIONS

(As of June 30, 1964)

Number of Registrations Issued 511

ENTOMOLOGY REFERENCE COLLECTION

Pinned Specimens 266,500
Alcohol Specimens 7,300
Insect and Mite Slides 17,500

PLANT LAW ENFORCEMENT

Nurseries Inspected 4,867
Acreage Quarantined 460.90
Plants Quarantined 6,029,302

DIVISION OF MARKETING BOND AND LICENSE DATA

Numer of Licenses Issued to Dealers 4,227
Amount of License Fees \$73,890
Dealers Delinquent with License Fees 179
Delinquent License Penalties \$1,790
Amount of Surety Bonds \$23,141.757
Complaint Investigations 609
Claims Investigated 215
Monetary Value of Claims \$365,072.70
Monetary Value of Claims Recovered \$172,092.03

MARKET EXPANSION—PROMOTION DATA

Commodity promotion programs conducted 15
Promotional materials used 4,000,000
Supermarket promotions 300,000
Contacts to set up promotions 2,400
Publicity releases written 182
Radio-television programs 60
Estimated circulation of published releases 69,000,000
Advertisements placed 5
Estimated circulation of published ads 65,000

ROAD GUARD SERVICE

(Inspections)

Number of Bovine Imports	254,761
Number of Bovine Exports	400,620
Number of Bovine Intra-State	64,357
Number of Swine Imports	443,390
Number of Swine Exports	37,573
Number of Swine Intra-State	100,705
Misc. Livestock Imports	25,163
Misc. Livestock Exports	28,225
Misc. Livestock Intra-State	2,732
Livestock Violations	611
Dairy Products (pounds)	257,422,442

CITRUS (Boxes)

Oranges	12,359,160
Grapefruit	18,909,711
Tangerines	2,840,441
Limes	633,865

CITRUS PRODUCTS

Canned Fruit and Juices (gals.)	27,307,455
Concentrates (gals.)	32,974,713
Citrus Juice (3-gal. cases)	3,767,639
Citrus Violations	193
Avocado and Lime Violations	250
Poultry (pounds)	447,028,730
Number of Imported Pullets	732,708
Eggs (cases)	1,658,463
Eggs Frozen (30# cans)	3,309,847
Vegetables (crt.)	144,346,925
Watermelons (cwt.)	11,663,031
Gladiolus (packages)	798,009
Chrysanthemums (cut flowers—packages)	580,996
Chrysanthemums (potted plants)	227,113
Number of Colonies of Bees	77,630
Violations of Bee Law	55

COMMODITY REPORT
State Farmers' Markets Sales Volume

FRUIT AND VEGETABLE MARKETS

	NUMBER UNITS*	GROSS SALES
Bonifay	391,620	\$ 276,770.97
Brooker	57,441	117,435.29
Florida City	2,454,968	11,993,991.00
Fort Myers	1,530,452	5,969,617.55
Fort Myers (Team Track)	124,186	221,898.75
Fort Pierce—Florida Products	3,275,499	8,613,753.78
Fort Pierce—Out-of-State Products	4,777	20,358.50
Gadsden Co. (Quincy)	127,214	412,368.50
Immokalee	1,377,433	5,598,521.94
Jay (Peanuts Only)	237	51,570.00
Pahokee	3,406,625	8,848,686.05
Palatka	2,439,953	4,490,222.53
Plant City	1,515,515	4,004,018.56
Plant City (Processed Commodities)	43,535	295,081.84
Pompano	11,912,411	46,176,215.55
Sanford—Florida Products	4,092,260	10,269,513.17
Sanford—Out-of-State Products	240,512	327,148.71
Starke	302,176	981,450.82
Wauchula	857,668	1,709,386.95
TOTAL	34,154,482	\$110,418,010.46

*Generally a unit is a bushel.

COMMODITY REPORT

State Farmers Markets Sales Volume

LIVESTOCK MARKETS

	NUMBER UNITS	GROSS SALES
Arcadia	211,619	\$ 3,056,131.65
Bonifay	39,682	669,847.11
Jay	99,127	1,784,279.72
TOTAL	350,428	\$ 5,510,258.48

**LIVESTOCK AND CROPS PAVILIONS
SALES AND SERVICES RENDERED**

Number Exhibits Shown	8,781
Number Animals Sold	3,267
Gross Sales	\$1,288,922.93
Meetings and Shows	1,863
Total Attendance	278,301

BRAKE FLUIDS

Number of Brands Registered	110
Number of Samples Analyzed	522
Number of Samples Illegal	110
Total Lots Stop-Saled (Misbranded, etc.)	179
Lots Stop-Saled (No permit)	36

PRESCRIPTION SCALES TESTED

Number of Scales Tested	3,104
Number Complying With Law	2,477
Number Corrected to Comply With Law	538
Number Condemned	89

WEIGHTS FOR PRESCRIPTION SCALES TESTED

Number of Weights Tested	89,229
Number Found In Tolerance	84,426
Number Corrected within Accepted Tolerance	1,079
Number Condemned and Seized	3,734

GASOLINE AND KEROSENE SAMPLES ANALYZED**GASOLINE ANALYSES**

Samples Found Legal	112,008
Samples Found Illegal	792

KEROSENE ANALYSES

Samples Found Legal	29,403
Samples Found Illegal	2,285

MISCELLANEOUS (other oil products)

Number Samples Analyzed	1,998
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**FABRIC MEASURING DEVICES AND LINEAR
MEASURES TESTED**

Number of Fabric Measuring Devices Tested	1,180
Complied With Law	1,031
Correction Notices Issued	142
Condemned	7
Number of Linear Measures Tested	4,027
Complied With Law	3,160
Correction Notices Issued	796
Condemned	71

VEHICLE SCALES TESTED

Number of Scales Tested	2,201
Number Complying With Law	1,574
Number of Correction Notices Issued	576
Number Condemned	51

ALL OTHER SCALES TESTED

Number of Scales Tested	124,137
Number Complying With Law	114,167
Number of Correction Notices Issued	8,116
Number Condemned	1,854

LIVESTOCK SCALES TESTED

Number of Scales Tested	1,289
Number Complying With Law	991
Number of Correction Notices Issued	227
Number Corrected	71

**GASOLINE & KEROSENE DEALERS, IMPORTERS
AND MANUFACTURERS REGISTERED WITH
FLORIDA DEPARTMENT OF AGRICULTURE**

(As of June 30, 1964)

Registrants	320
Brands of Gasoline Registered	800
Brands of Kerosene Registered	94

GASOLINE INSPECTION LAW ENFORCEMENT

Inspections of Gasoline Pumps at Filling Stations	277,197
Gasoline Pumps Found Inaccurate or Otherwise Out of Order	17,768
Inspections of Kerosene Pumps at Filling Stations	56,811
Kerosene Pumps Found Inaccurate or Otherwise Out of Order	2,914
Inspections of Diesel and Other Pumps	10,793
Diesel Pumps Found Inaccurate or Otherwise Out of Order	341
Correction Notices Issued on Gasoline, Kerosene, Diesel and Other Pumps at Filling Stations and Food Stores	11,968
Vehicle tank compartments calibrated	8,400
Vehicle tank compartments found not within tolerance and corrected	382
Vehicle tank compartments not calibrated and correction notice issued	12
Wholesale meters calibrated	8,227
Wholesale meters found not within tolerance and corrected	2,180
Wholesale meters not calibrated and correction notice issued	10
Gasoline Samples Drawn from Retailers	100,793
Gasoline Samples Drawn from Bulk Plants, Tank Cars and Terminals	13,195
Kerosene Samples Drawn from Retailers	20,785
Kerosene Samples Drawn from Bulk Plants, Tank Cars and Terminals	3,856
Kerosene Samples Drawn at Food Stores	4,691
Gallons Gasoline Found Illegal and Controlled	1,626,201
Gallons Kerosene Found Illegal and Controlled	521,414

